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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,509	02/04/2004	Wilhelmus H.J. Nellen	0142-0452P	1773
2292	7590	12/28/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			GOLDBERG, BRIAN J	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/770,509	NELLEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian Goldberg	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 February 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-17 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 04 February 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/4/04 and 8/12/04</u> . | 6) <input type="checkbox"/> Other: _____  |

***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: arrow I, referenced in paragraph [0030] and 70, referenced in paragraph [0038]. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

2. The disclosure is objected to because of the following informalities: in paragraph [0035], "tilled" should be "tilted".

Appropriate correction is required.

***Claim Objections***

3. Claim 1 is objected to because of the following informalities: In the second to last line of the claim, "said second adjustors selectively, operatively communications with..." is unclear and not proper English. Appropriate correction is required. For the purpose of this examination, "communications" was substituted with "coupled".

4. Claim 10 is objected to because of the following informalities: It is unclear what "therewith" refers to in the last line of the claim. With what is the second stop surface in contact? Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no mention in the specification that "the male part is provided with a pilot surface." The only mention of pilot faces refers to the female part (9).

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 1 recites the limitation "the angular orientation" in line 1 of the claim.

There is insufficient antecedent basis for this limitation in the claim.

10. Claim 3 recites the limitation "the nozzle side of the cartridge" in lines 2-3 of the claim. There is insufficient antecedent basis for this limitation in the claim.
11. Claim 5 recites the limitation "the path of reciprocal movement" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.
12. Claim 8 recites the limitation "the paper web" in the last line of the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-5 and 7-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tominaga (US 6575557) in view of Riou (US 6626511).
15. Regarding claim 1, Tominaga discloses "A system for adjusting the angular orientation in a first plane of a plurality of print head cartridges or groups of cartridges (20 of Fig 1) arranged adjacent to each other on a carriage (30 of Fig 1) which can be reciprocated in a Y-direction (arrow A of Fig 2A), wherein each of said cartridges or groups of cartridges is mounted on said carriage to be tiltable in a first vertical plane perpendicular on the Y- direction (col 3 ln 54-55), wherein for each of said cartridges or groups of cartridges said carriage is provided with first adjustors (40 of Fig 1) for adjusting the angular orientation of the respective cartridge or groups of cartridges, said system being provided with second adjustors (50 of Fig 4A) ... for adjusting said angular

orientation of said cartridge or groups of cartridges (col 7 ln 56-59), said second adjustors selectively, operatively communications with said first adjustors (see Fig 4A) of a selected one of said cartridges or groups of cartridges." Thus Tominaga meets the claimed invention except "second adjustors arranged remote from said carriage."

16. Riou teaches providing "second adjustors (403, 404 of Fig 4) arranged remote from said carriage (109 of Fig 3) for adjusting said angular orientation of said cartridge or groups of cartridges (col 6 ln 9-15)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide second adjustors remote from the carriage. One would have been motivated to so modify Tominaga for the benefit of simplifying the manufacturing process of the carriage, which would also reduce the cost of production.

17. Regarding claim 2, Tominaga discloses "wherein the second adjustors (50) are pivotable in a plane perpendicular to the Y-direction between a retracted position and a coupled position (see Figs 8A and 8B, where the Y-direction is the vertical direction in the figure and the adjustor moves in the horizontal direction)." Also, Riou discloses "wherein the second adjustors (403 of Fig 6) are pivotable in a plane perpendicular to the Y-direction between a retracted position and a coupled position (see Fig 6, where the adjustor moves in a vertical direction in the figure, perpendicular to the horizontal Y-direction)."

18. Regarding claim 3, Tominaga discloses "wherein the second adjustors (50) are movable towards the coupled position in a direction towards the nozzle side of the carriage (see Fig 8B, where the adjustor moves horizontally, towards the nozzle)."

19. Regarding claim 4, Tominaga discloses "wherein each one of said cartridges or groups of cartridges is provided with said first adjustors (40 of Fig 1)."

20. Regarding claim 5, Tominaga discloses "wherein said second adjustors (50) are arranged at one end of the path of reciprocal movement of said carriage (see Fig 1, where the adjustors are at the outer end of the path of reciprocal movement of the carriage)". Also, Riou discloses "wherein said second adjustors (403, 404 of Fig 3) are arranged at one end of the path of reciprocal movement of said carriage (see Fig 3, where the adjustors are at the outer end of the path of reciprocal movement of the carriage)

21. Regarding claim 7, Tominaga discloses "wherein said first adjustors are adapted for tilting said cartridge by being moved in said first vertical plane (40 of Fig 2A move in direction of arrow B which is in a vertical plane perpendicular to the Y-direction of arrow A)."

22. Regarding claim 8, Riou discloses "wherein said first adjustors (401, 402 of Fig 5A and 5B) are adapted for tilting said cartridge by being moved substantially vertically, that is perpendicular to the paper web to be printed (401 and 402 can move up and down, perpendicular to the plane of the paper)."

23. Regarding claim 9, Tominaga discloses "wherein said first adjustors (40) are adapted for tilting said cartridge by being moved in a substantially linear path (see Figs 8A and 8B, where adjustors 40 move linearly in a horizontal manner as pictured)

24. Regarding claim 10, Tominaga discloses "wherein said first adjustors comprise a first stop surface (42 of Fig 4B) on said cartridge and a movable wedge-shaped second stop surface (81 of Fig 9) in contact therewith."
25. Regarding claim 11, Tominaga discloses "wherein said first (40) and second (50) adjustors comprise first and second cooperating coupling means and means for bringing the first and second coupling means into and out of operative engagement with each other (col 4 ln 44-48, 40 and 50 are coupled by threading)."
26. Regarding claim 12, Tominaga discloses "wherein said first adjustors (40) comprise a spindle (41 of Fig 4B) forming a rotational unity with said first coupling means, said first and second coupling means having matching, not rounded cross-sections (see Fig 8A, where the cross sections of 40 and 50 are not rounded)."
27. Regarding claim 13, Tominaga discloses "wherein the second coupling means form a male part (see Fig 8A where 50 is inserted in 40)."
28. Regarding claim 14, Tominaga discloses "wherein the male part is provided with a pilot surface (col 4 ln 45-48, being threaded encompasses having a pilot surface)."
29. Regarding claim 15, it would be obvious to change the shape of the first and second coupling means disclosed by Tominaga as set forth above to have a hexagonal cross-section.
30. Regarding claim 16, Tominaga discloses "wherein said second coupling means are rotatable (col 4 ln 44-45)."

Art Unit: 2861

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Talbott can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJG

*TP*

December 15, 2005

Thinh Nguyen  
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